PROGRESS
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MEDICINE

UNDER THE CHARGE OF

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Results of Antityphoid Vaccination in the Army in 1911, and its Suitability for Use in Civil Communities.—Frederick F. Russell (*Jour. Amer. Med. Assoc.*, 1912, lviii, 1331) reports that antityphoid vaccination in the army has been carried out as follows: An avirulent culture of the typhoid bacillus is grown for twenty-four hours on agar, washed off in normal salt solution, standardized by counting the bacilli, killed by heating to 55° C. for an hour. Twenty-five per cent. tricresol is added as a matter of safety. This vaccine is injected subcutaneously in three doses at ten-day intervals. The first contains 5 million bacteria, the latter two a billion. As a rule, there is a local reaction consisting of a red and tender area about the size of the palm of the hand, subsiding within forty-eight hours. A severe general reaction occurs in only 1 to 3 persons per thousand. Since 1908, approximately 100,000 vaccinations have been made with no accidents. The effect on the morbidity from typhoid is now becoming apparent. From its use under conditions in the army, Russell believes that anti-typhoid vaccination in healthy persons is harmless and efficient, since it confers almost absolute immunity against infection under all conditions, assuredly for two and a half years, and probably longer. Thus the general vaccination of an entire community is feasible, and should be urged wherever the typhoid rate is high.

Secondary Infections in Ulcerative Tuberculosis of the Lung.—A. Veillon and G. Repaci (*Annales de l'Institut Pasteur*, Paris, 1912, xxvi, 300) have studied the question of secondary infection in tuberculosis in the following manner: Smear preparations, animal inoculations, and cultures on aërobic and anaërobic media were made from tuberculous sputum, cavities or lung tissue at autopsy, and from the circulating blood. By this method the cases studied fell into three groups. (1) A small number of cases in which no other organisms save tubercle bacilli were found. (2) A large number of cases in which the common aërobic organisms were found, never, however, in lung tissue or blood. Thus Veillon and Repaci think that such bacteria may remain in tuberculous cavities for a long time without causing complications. (3) A large number of cases in which anaërobic organisms were grown from sputa, cavities, and lung tissue. They consider this group of especial importance. In such cases clinically, the sputum is often colored and foul, giving to the breath a characteristic odor. Pathologically, in addition to tuberculosis, the lung shows evidence of putrefaction. Since these organisms penetrate deeply into the tissue, small areas of gangrene may appear, and by rupturing into the pleural cavity may cause a putrid pleurisy. On the whole, Veillon and Repaci believe that anaërobic infection gives to tuberculosis special features, characterized by foul sputum and gangrene of the lung with resultant aggravation of the patient's general condition.

Aortic Aneurysm of Rheumatic Origin.—P. EMILE WEIL and P. J. MÉNARD (*Bull. et Mém. Soc. méd. d. hôp. de Paris*, 1912, 3d, 491) describe a case of aneurysm of the ascending arch of the aorta, with aotic insufficiency, in a woman, aged forty-four years. There was no evidence of hereditary or acquired syphilis. The Wassermann reaction was negative. The family history was rheumatic, and when four years old the patient had suffered a severe attack of polyarticular rheumatism with subsequent less severe attacks every winter. From the facts that aneurysm, with typical clinical and radioscopic signs seemed to follow the rheumatism, and with history negative in other respects, it seems logical to consider the lesion of rheumatic origin. Doubtlessly, syphilis must be considered the most frequent cause of aneurysm. It is not the only one. From a careful review of the literature Weil and Ménard believe it is established both from pathological and histological standpoints: That aneurysms may develop after general infections, and rhematism particularly. Clinically Weil and Ménard conclude that aneurysms of this etiology have essentially the following features: They develop in young people usually aged under thirty years, following one or more attacks of acute rheumatism. The most frequent location is on the ascending portion of the aortic arch accompanying a valvular lesion, usually aortic insufficiency. The outcome is rapid. [One wonders whether some of these instances of "rheumatic" aneurysms may not represent that remarkable dynamic pulsation of the elastic aorta sometimes met with in aortic insufficiency in the young.—W. S. T.]

Mechanical Production of Fever.—A. BOCK (*Archiv f. exp. Path. u. Pharmakol.*, 1912. lxviii, 1) has investigated the possibility of producing fever simply by mechanical irritation. All observations have been made on experimental animals. He arrives at the following conclusions: (1) The sodium ion has the specific property of raising body temperature. Intravenous injection of 20 c.c. of sterile Ringer's